IN THE CLAIMS:

The following listing of claims replaces all prior versions and listings of claims in this application.

1. (Previously Presented) A direct methanol fuel cell including a multiple number of connected unit cells, each composed of a fuel electrode element of a microporous carbon material, an electrolyte layer formed on an outer surface of the fuel electrode element, an air electrode layer formed on an outer surface of the electrolyte later, and each unit cell is connected to a fuel feeder having an infiltration structure and coupled with a fuel reservoir for storing liquid fuel, so as to supply liquid fuel thereto.

2. (Previously Presented) The direct methanol fuel cell according to Claim 1, wherein a terminal end of the fuel feeder is connected to a spent fuel reservoir.

3. (Original) The direct methanol fuel cell according to Claim 1, wherein the fuel reservoir is constructed of a replaceable cartridge structure.

4. (Previously Presented) The direct methanol fuel cell according to Claim 1, further comprising a fuel supply system for supplying liquid fuel from the fuel reservoir to the fuel feeder, wherein the fuel supply system includes an valve element and/or a collector element.

5. (Original) The direct methanol fuel cell according to Claim 1, wherein the fuel electrode element and the fuel feeder adjoining the fuel electrode element are formed of a porous material and/or bundled fibers presenting capillarity.

6. (Previously presented) The direct methanol fuel cell according to Claim 2, wherein the fuel electrode element provides the function of a fuel feeder.

7. (Original) The direct methanol fuel cell according to Claim 2, wherein the fuel feeder is arranged from the fuel reservoir to the spent fuel reservoir, and the magnitudes of capillarity of the fuel reservoir, the fuel electrode element and/or fuel feeder adjoining the fuel electrode element and the spent fuel reservoir are selected so that the fuel reservoir < the fuel electrode element and/or fuel feeder adjoining the fuel electrode element < the spent fuel reservoir.

8. (Canceled)

9. (Original) The direct methanol fuel cell according to Claim 8, wherein the powdery carbon is composed of, at least, one selected from the group of highly ordered pyrolitic graphite (HOPG), kish graphite, natural graphite, artificial graphite, carbon nanotubes and fullerenes.

10. (Previously Presented) A direct methanol fuel cell including a multiple number of connected unit cells, each composed of a fuel electrode element of a microporous carbon material, an electrolyte layer formed on an outer surface of the fuel electrode

element, an air electrode layer formed on an outer surface of the electrolyte layer, the fuel cell comprising:

a fuel reservoir,

an occluding element for absorbing a liquid fuel filling an area within the fuel reservoir so that any fuel in the reservoir will be in contact with the occluding element in any orientation of the reservoir, the occluding element being formed of a porous material and/or bundled fibers representing capillarity; and

a fuel feeder having an infiltration structure is connected to the porous material and/or bundled fibers presenting capillarity within the reservoir;

each unit cell is connected to the fuel feeder and thereby coupled with the porous material and/or bundled fibers presenting capillarity within the reservoir, so as to supply liquid fuel thereto.

11. (Previously Presented) The direct methanol fuel cell according to Claim 10, wherein the terminal end of the fuel feeder is connected to a spent fuel reservoir.

12. (Previously Presented) The direct methanol fuel cell according to Claim 10, wherein the fuel reservoir is constructed of a replaceable cartridge structure.

13. (Previously Presented) The direct methanol fuel cell according to Claim 11, wherein the fuel electrode element provides the function of a fuel feeder.

14. (Previously Presented) The direct methanol fuel cell according to Claim 11, wherein the fuel feeder is arranged from the fuel reservoir to the spent fuel reservoir,

and the magnitudes of capillarity of the fuel reservoir, the fuel electrode element and/or fuel feeder adjoining the fuel electrode element and the spent fuel reservoir are selected so that the fuel reservoir <the fuel electrode element and/or fuel feeder adjoining the fuel electrode element < the spent fuel reservoir.

15. (Previously Presented) The direct methanol fuel cell according to Claim 1, wherein the microporous carbon material is a carbon composite forming which is made up of amorphous carbon and powdery carbon, having micro continuous pores.

16. (Previously Presented) The direct methanol fuel cell according to Claim 10, wherein the microporous carbon material is a carbon composite forming which is made up of amorphous carbon and powdery carbon, having micro continuous pores.

17. (Previously Presented) The direct methanol fuel cell according to Claim 16, wherein the powdery carbon is composed of, at least, one selected from the group of highly ordered pyrolytic graphite (HOPG), kish graphite, neutral graphite, artificial graphite, carbon nanotubes and fullerenes.

18. (Previously Presented) A direct methanol fuel cell including a multiple number of connected unit cells, each composed of a fuel electrode element of a microporous carbon material, an electrolyte layer formed on an outer surface of the fuel electrode element, an air electrode layer formed on an outer surface of the electrolyte later, the fuel cell comprising:

a fuel reservoir,

an occluding element for absorbing a liquid fuel filling an area within the fuel reservoir so that any fuel in the reservoir will be in contact with the occluding element in any orientation of the reservoir, the occluding element being formed of a porous material and/or bundled fibers representing capillarity;

a fuel feeder having an infiltration structure is connected to the porous material and/or bundled fibers presenting capillarity within the reservoir,

a fuel supply system for supplying liquid fuel from the fuel reservoir includes a valve element;

each unit cell being connected to the porous material and/or bundled fibers presenting capillarity within the reservoir, so as to supply liquid fuel thereto.

19. (Previously Presented) The direct methanol fuel cell according to Claim 10, further comprising a fuel supply system for supplying liquid fuel from the fuel reservoir to the fuel feeder, wherein the fuel supply system includes a valve element and/or a collector element.

20. (Previously Presented) The direct methanol fuel cell according to Claim 18, wherein the fuel supply system for supplying liquid fuel from the fuel reservoir to the fuel feeder includes a second valve element and/or a collector element.